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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,397	02/15/2002	Peter J. Wonfor	0085C	4138

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PATENT DEPARTMENT  
MACROVISION CORPORATION  
2830 DE LA CRUZ BLVD.  
SANTA CLARA, CA 95050

EXAMINER
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VU, NGOC K

ART UNIT	PAPER NUMBER
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2623

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12/12/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/077,397		WONFOR ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Ngoc K. Vu		2623	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 October 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 63-124 is/are pending in the application.
- 4a) Of the above claim(s) 93-96, 98 and 118-124 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 63-79 is/are allowed.
- 6) ☒ Claim(s) 80-92, 97, and 99-117 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/22/2007 has been entered.

***Response to Arguments***

2. Applicant's arguments filed 10/22/2007 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 80, 82 are rejected under 35 U.S.C. 102(b) as being anticipated by Ryan (US 5,315,448 A).

Regarding claim 80, Ryan teaches a method of providing programmable copy protection of a video signal, wherein a plurality of copy protection signals are available for application to the video, comprising: providing bit patterns indicative of respective programmable copy protection configurations corresponding to the plurality of copy protection signals (detecting anti-copy bit); applying one or more of the programmable copy protection configuration to the video signal to produce a copy protected video signal (an analog video anti-copy signal) (by the circuit 50) in response to a selection of one or more corresponding bit pattern (anti-copy bit that is

selected or set by provider); and wherein the copy protected video signal is watchable while a recording of the copy protected video signal is not watchable (thus, analog video signal at output terminal 24 is an analog video signal modified by an analog anti-copy process. This prevents recording the video signal from playback the video from the prerecorded tape. See col. 6, lines 25-54).

Regarding claim 82, Ryan teaches an apparatus for providing programmable copy protection of a video signal, wherein a plurality of copy protection signals are available for application to the video, comprising: a circuit for providing bit patterns indicative of respective programmable copy protection configurations corresponding to the plurality of copy protection signals (detecting anti-copy bit by circuit 46); a circuit (50) for applying one or more of the programmable copy protection configuration to the video signal to produce a copy protected video signal (an analog video anti-copy signal) in response to a selection of one or more corresponding bit pattern (anti-copy bit that is selected or set by provider); and wherein the copy protected video signal is watchable while a recording of the copy protected video signal is not watchable (thus, analog video signal at output terminal 24 is an analog video signal modified by an analog anti-copy process. This prevents recording the video signal from playback the video from the prerecorded tape. See col. 6, lines 25-54).

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 83-85, 87 are rejected under 35 U.S.C. 102(e) as being anticipated by Inoue et al. (US 5,889,919 A).

Regarding claim 83, Inoue teaches a method of programming one or more copy protection waveforms for use in a video signal derived via provided a digital delivery network that includes a transmission link, wherein the transmission link includes satellite system (see abstract; col. 2, lines 61-66), the method comprising: providing one or more control bits (copy control signal received from broadcast signal) from the transmission link to at least one remote device (300) (see col. 3, lines 5-9 and 59-64; col. 4, lines 18-21 and figure 3), wherein the remote device (300) includes an encoder circuit (325) that provides a programmable copy protection signal for the video signal in response to the one or more control bits (see steps 205-215, 220, and 225 in figure 2; col. 3, lines 15-19; col. 4, lines 5-8); and applying the programmable copy protection signal to the video signal to produce a copy protected video signal, wherein the copy protected video signal is viewable but not recordable (the copy protect signal against unauthorized copies, however, the copy protect signal does not effect the process of displaying the incoming broadcast. It is further noted that any unauthorized recording of the video signal after processing through the circuit 325 result in recorded broadcast that is obscured. See col. 3, lines 20-22; col. 4, lines 5-12).

Regarding claim 84, Inoue teaches an apparatus for programming one or more copy protection waveforms into a video signal derived of a remote device (300), wherein the video signal is derived from a digital signal provided by a digital delivery network that includes a transmission link, wherein the transmission link includes satellite system (see abstract; col. 2, lines 61-66), the apparatus comprising: a circuit for providing one or more control bits (copy control signal received from broadcast signal) from the transmission link to at least one remote device (300) (see col. 3, lines 5-9 and 59-64; col. 4, lines 18-21 and figure 3), wherein the

remote device (300) includes an encoder circuit (325) that provides a programmable copy protection signal to the video signal in response to the one or more control bits (see steps 205-215, 220, and 225 in figure 2; col. 3, lines 15-19; col. 4, lines 5-8); and a circuit for applying the programmable copy protection signal to the video signal to produce a copy protected video signal, wherein the copy protected video signal is viewable but not recordable (the copy protect signal against unauthorized copies, however, the copy protect signal does not effect the process of displaying the incoming broadcast. It is further noted that any unauthorized recording of the video signal after processing through the circuit 325 result in recorded broadcast that is obscured. See col. 3, lines 20-22; col. 4, lines 5-12).

Regarding claim 85, Inoue teaches that the digital delivery network includes video service provider such as satellite broadcast provider for sending compressed video signals over the digital delivery network (col. 2, lines 61-66; col. 3, lines 55-62; col. 4, lines 1-5).

Regarding claim 87, Inoue teaches the programmable copy protection signal includes providing AGC pulse modification on/off (see col. 4, lines 26-29; col. 3, lines 20-34).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 86 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 5,889,919 A).

Regarding claim 86, Inoue does not teach an electronic program guide for display on the television monitor. Official Notice is well known that providing an electronic program guide comprising information such as titles, air times, and channels, for display on television monitor is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Inoue by having an electronic program guide for display on television monitor in order to visually provide viewers information of television programs.

9. Claim 81 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ryan (US 5,315,448 A) in view of Orguro (US 5,907,655 A).

Regarding claim 81, Ryan does not explicitly teach copy protection using AGC or color stripping technique. However, Oguro discloses copy protection function using techniques, such as AGC or color stripping (see abstract; col. 1, lines 41-50). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ryan by using techniques, such as AGC or color stripping, as taught by Oguro in order to effectively provide function of copy protection in a recorder.

10. Claims 88-92, and 104-109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 5,889,919 A) in view of Ryan (US 5,130,810 A).

Regarding claim 88, Inoue teaches an apparatus for processing a satellite signal, comprising: a digital signal decompression circuit (320 – see figure 3); an NTSC encoder circuit (within SW2) for providing an output for a video signal (providing an NTSC video output to be output as a standard television signal); a copy protection control registers (310) for receiving one or more programmable copy protection configuration bits (see figure 3; col. 3, lines 62-64); and wherein the video signal is provided with a copy protection signal to produce a copy

protected signal, wherein the copy protected signal is viewable on a television monitor (335 – figure 3) but not recordable (col. 3, lines 15-19; col. 4, lines 5-12).

Inoue does not explicitly teach producing a copy protected signal including a back porch pulse signal. However, Ryan discloses modifying a video signal so that a television receiver still produces a normal color picture from the modified signal, whereas a recording of this signal produces unacceptable pictures. Particularly, Ryan's apparatus generates a back porch pulse, for example, the back porch pulse as illustrated in figure 3 can be added to video signal on every fifth line of the signal. This would reduce the brightness reduction due to the averaging action of black level clamps (see abstract; col. 4, line 60 to col. 5, line 3; col. 3, lines 58-62). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Inoue by generating a back porch pulse as disclosed by Ryan in order to reduce the brightness reduction due to the averaging action of black level clamps.

Inoue does not teach an electronic program guide for display on the television monitor. Official Notice is well known that providing an electronic program guide comprising information such as titles, air times, and channels, for display on television monitor is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Inoue by having an electronic program guide for display on television monitor in order to visually provide viewers information of television programs.

Regarding claim 89, Inoue teaches a provision for conditional access (col. 3, lines 8-22).

Regarding claim 90, Inoue teaches that the video signal is provided by a video service provider, and wherein the video signal is delivered via a satellite signal (see col. 2, lines 63-66).

Regarding claim 91, Inoue further teaches that a device including an integrated circuit (305) and wherein the device is coupled to a satellite signal (see figure 3; col. 3, lines 59-62).



Regarding claim 92, Inoue teaches that circuitry for programming or reconfiguring the copy protection signal, and a memory circuit for storing into memory the one or more programmable copy protection configuration bits (within 325 – see figure 3; col. 4, lines 5-10).

Regarding claim 104, Inoue teaches an apparatus for receiving digital images from a service provider (DBS), comprising: a device (305 – figure 3) for reception of information derived from a satellite signal; a digital decompressor (320 – figure 3); a memory (within 300 or 397 - figure 3); a programmable copy protection signal generator (325 - figure 3) (see col. 2, lines 61-67; col. 3, lines 59-62; col. 4, lines 1-12).

Inoue does not explicitly teach generating a back porch pulse signal. However, Ryan discloses generating a back porch pulse, for example, the back porch pulse as illustrated in figure 3 can be added to video signal on every fifth line of the signal. This would reduce the brightness reduction due to the averaging action of black level clamps (see col. 4, line 60 to col. 5, line 3; col. 3, lines 58-62). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Inoue by generating a back porch pulse as disclosed by Ryan in order to reduce the brightness reduction due to the averaging action of black level clamps.

Inoue's apparatus includes displaying video on a television monitor 335 (figure 3). Inoue does not teach an electronic program guide for display on the television monitor. Official Notice is well known that providing an electronic program guide comprising information such as titles, air times, and channels, for display on television monitor is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Inoue by having an electronic program guide for display on television monitor in order to visually provide viewers information of television programs.

With respect to claim 104 and claim 108, Inoue and Ryan do not explicitly teach a digital analog converter circuit and the output of the digital to analog converter includes an analog image signal and back porch pulses. Official Notice is taken that digital to analog converter (DAC or D/A) for converting digital signal to analog signal is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined apparatus of Inoue and Ryan by including a digital to analog converter for converting digital video signal to analog video signal to output analog video for displaying.

Regarding claims 105 and 107, Inoue's apparatus further includes a copy control signal (received on line 345) which enables recording/viewing of the video signal or enabling/disabling at least a portion of a copy protector processor (see col. 4, lines 19-23).

Regarding claim 106, Inoue teaches that the apparatus comprises an MPEG decompressor (see col. 4, lines 1-4).

Further regarding claim 108, it is noted that the video signal of the combined system Inoue and Ryan is in standard form in that it includes the horizontal and vertical sync pulses.

Regarding claim 109, Inoue as modified by Ryan further teaches modifying the video signal in that a negative pulse is added to the video signal on all lines during the back porch interval, for example, this pulse is set at half the amplitude of the sync pulses (see Ryan: col. 4, lines 24-40).

11. Claims 97, 99-101, 103, and 110-117 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryan (US 5,315,448 A) in view of Ryan (US 5,130,810 A).

Regarding claim 97, Ryan ('448) teaches an apparatus comprising a receiver of a digital signal (D) that includes the capability of programming at least part of a video copy protection signal, comprising: circuitry for providing one or more mode bits (anti-copy bit) and more or more configuration bits (SCPS bit) indicative of one or more programmable copy protection

signal (col. 6, lines 1-4; col. 7, lines 41-43; figure 1); said circuitry enabling the one or more mode bits to enable programming of the one or more programmable copy protection signal onto a digital signal derived from the received digital signal (e.g., detector 32 issues a disabled recording control signal which controls operation of switch 38 in response to detecting value "1" of the anti-copy bit so that the digital video material is not to be copied. See col. 6, lines 1-7); and wherein the one or more programmable copy protection signal (AC bit from AC bit adder 60) is added or inserted onto the derived digital signal to provide a copy protected digital signal (col. 7, lines 41-48); wherein the copy protection digital signal is converted to a copy protected analog video signal (col. 6, lines 42-46); and wherein the copy protected analog video signal is successfully watachable not is not recordable (figure 1; col. 4, lines 27-38).

Ryan ('448) does not explicitly teach generating a back porch pulse signal. However, Ryan ('810) discloses generating a back porch pulse, for example, the back porch pulse as illustrated in figure 3 can be added to video signal on every fifth line of the signal. This would reduce the brightness reduction due to the averaging action of black level clamps (see col. 4, line 60 to col. 5, line 3; col. 3, lines 58-62). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Ryan ('448) by generating a back porch pulse as disclosed by Ryan ('810) in order to reduce the brightness reduction due to the averaging action of black level clamps.

Regarding claim 99, Ryan ('448) teaches that the receiver includes a RF modulator (see col. 4, lines 39-46).

Regarding claim 100, Ryan ('448) teaches the apparatus comprises component video output (24, 42 - see figure 1). Ryan's apparatus includes display to present the video output (see figure 1; col. 4, lines 36-47). Ryan's apparatus does not teach providing an electronic program guide. Official Notice is well known that providing an electronic program guide

comprising information such as titles, air times, and channels, for display on television monitor is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Ryan ('448) by having an electronic program guide for display on television monitor in order to visually provide viewers information of television programs.

Regarding claim 101, Ryan ('448) teaches that the service provider includes broadcast company (see col. 4, lines 1-2).

Regarding claim 103, Ryan ('448) teaches that wherein one or more configuration bits are stored in the receiver (see col. 7, lines 43-48).

Regarding claim 110, see rejection of claim 97 above.

Regarding claim 111, Ryan ('448) teaches that wherein the apparatus includes a video encoder circuit (within 60 - figure 1).

Regarding claim 112, see rejection of claim 99 above.

Regarding claim 113, see rejection of claim 100 above.

Regarding claim 114, Ryan ('448) teaches that the apparatus includes a digital to analog device (22 - figure 1).

Regarding claim 115, Ryan ('448) teaches that the apparatus includes a microwave frequency device (col. 4, lines 39-47).

Regarding claim 116, Ryan ('448) teaches that the apparatus includes a receiver or demodulator device (see col. 4, lines 39-47).

Regarding claim 117, Ryan ('448) teaches that the output thereof is coupled to a display or a recording device (see col. 6, lines 14-24; col. 8, lines 3-8; figure 1).

12. Claim 102 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ryan (US 5,315,448 A) in view of Ryan (US 5,130,810 A) and further in view of Oguro (US 5,907,655 A).

Regarding claim 102, Ryan ('448) does not explicitly teach copy protection using color stripping technique. However, Oguro discloses a system and method for digital video signals in which the copy protection function using color stripping technique that can be effective in a digital VTR (see abstract; col. 1, lines 41-50). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ryan ('448) by using color stripping technique as taught by Oguro to increase more effectiveness of copy protection in a digital VTR.

***Allowable Subject Matter***

13. Claims 63-79 are allowed.

14. The following is a statement of reasons for the indication of allowable subject matter: the prior art, either alone or in combination, fails to teach or fairly suggest the features of a copy protection command having a mode control command of one or more bit included with the transmitted signal, and a programmable configuration bit pattern indicative of the one or more copy protection signal, and applying the one or more copy protection signal to the video signal to produce a copy protected video signal in response to a programmable configuration bit pattern selected by the transmitted mode control command, to prevent copying or subsequent viewing of the recording of the copy protected video signal, wherein the copy protected video signal is successfully watchable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc K. Vu whose telephone number is 571-272-7306. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ngoc Vu/  
NGOC K. VU  
PRIMARY EXAMINER  
Art Unit 2623

December 10, 2007